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| 09/800,543 | 03/06/2001 | Stefan J. Burmeister | 01P7507US | 4163 |
| 26161 | 7590 | 03/17/2004 | EXAMINER | |
| FISH & RICHARDSON PC 225 FRANKLIN ST BOSTON, MA 02110 | | | KAO, CHIH CHENG G | |
| | | | ART UNIT | PAPER NUMBER |
| | | | 2882 | |
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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/800,543

Applicant(s)

BURMEISTER, STEFAN J.

Examiner

Chih-Cheng Glen Kao

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 January 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3,5,6,8-11,18-20,22-25 and 27-35 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3,5,6,8-11,18-20,22-25 and 27-35 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 09 July 2001 is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1. Claims 1-3, 5, 6, 8-11, 18-20, 22-25, and 27-35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dickson et al. (US Patent 5191204) in view of Gilliland et al. (US Patent 5812582) and Jiang et al. (US Patent 5757829).

2. With regards to claim 1, Dickson et al. discloses an apparatus and method comprising a laser array including a first laser and a second laser coupled in parallel (Fig. 1, #20 and 22) wherein the second laser has a substantially different power output (col. 1, lines 23-24) and means for monitoring (Fig. 1, #42 and 44).

However, Dickson et al. does not disclose a first VCSEL directing light into a fiber and means for monitoring a second power output to provide an indication of a first power output.

Gilliland et al. teaches a first VCSEL (col. 4, lines 25-30) directing light into a fiber (Fig. 1, #96). Jiang et al. teaches a means for monitoring a second power output (Fig. 3, #50) for indication of a first output (col. 4, lines 35-47).

It would have been obvious, to one having ordinary skill in the art at the time the invention was made, to have the device of Dickson et al. with the VCSEL of Gilliland et al.,

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since one would be motivated to incorporate this for a more compact size (col. 1, line 12, and col. 3, lines 25-27) as implied from Gilliland et al.

It would have been obvious, to one having ordinary skill in the art at the time the invention was made, to have the device of Dickson et al. with the means for monitoring of Jiang et al., since one would be motivated by inexpensive costs and easy fabrication of a power monitor system and automatic power control as implied from Jiang et al. (col. 1, lines 49-65).

3. With regards to claim 2, Dickson et al. in view of Gilliland et al. and Jiang et al. suggests an apparatus as recited above.

However, Dickson et al. does not disclose mounting the VCSEL and means of monitoring in a TO can.

Gilliland et al. further teaches mounting the VCSEL and means of monitoring in a TO can (col. 4, lines 25-30).

It would have been obvious, to one having ordinary skill in the art at the time the invention was made, to further modify the device of Dickson et al. with the mounting in a TO can of Gilliland et al., since one would be motivated to incorporate this for a more compact size (col. 1, line 12, and col. 3, lines 25-27) as implied from Gilliland et al.

4. With regards to claim 3, Dickson et al. further discloses a window through which light from a first laser may pass (Fig. 1, #16).

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5. With regards to claim 5, Dickson et al. further discloses a plurality of electrical connection pins (Fig. 1, #60-66).

6. With regards to claims 6 and 8, Dickson et al. in view of Gilliland et al. and Jiang et al. suggests a device as recited above.

However, Dickson et al. does not disclose VCSELs connected to the same pins and power source.

Jiang et al. further teaches VCSELs connected to the same pins and power source (Fig. 4).

It would have been obvious, to one having ordinary skill in the art at the time the invention was made, to further modify the device of Dickson et al. with VCSELs connected to the same pins of Jiang et al., since one would be motivated to connect the lasers with the same pins to the same power source to reduce manufacturing costs as implied from Jiang et al. (Fig. 4).

7. With regards to claims 9 and 18 and for purposes of being concise, Dickson et al. in view of Gilliland et al. and Jiang et al. suggests a device as recited above.

However, Dickson et al. does not disclose a monitoring diode.

Jiang et al. further teaches a monitoring diode (Fig. 5, #50).

It would have been obvious, to one having ordinary skill in the art at the time the invention was made, to further modify the device of Dickson et al. with the monitoring diode of Jiang et al., since one would be motivated by inexpensive costs and easy fabrication of a power monitor system and automatic power control as implied from Jiang et al. (col. 1, lines 49-65).

8. With regards to claim 10, Dickson et al. in view of Gilliland et al. and Jiang et al. suggests a device as recited above.

However, Dickson et al. does not disclose the current of the diode proportional to light from a second VCSEL.

Jiang et al. further teaches the current of the diode proportional to light from a second VCSEL (col. 4, lines 34-47).

It would have been obvious, to one having ordinary skill in the art at the time the invention was made, to further modify the device of Dickson et al. with the proportional current of Jiang et al., since one would be motivated to incorporate this for better feedback control as implied from Jiang et al. (col. 4, lines 34-47).

9. With regards to claims 11, 27, and 29, Dickson et al. further discloses an optical data stream (col. 1, lines 23-24).

10. With regards to claims 19, 20, and 22, and for purposes of being concise, Dickson et al. in view of Gilliland et al. and Jiang et al. suggests a device and method as recited above.

However, Dickson et al. does not disclose VCSELs connected to the same pins and source in parallel.

Jiang et al. further teaches VCSELs connected to the same pins and source in parallel (Fig. 4).

It would have been obvious, to one having ordinary skill in the art at the time the invention was made, to further modify the device and method of Dickson et al. with VCSELs in parallel of Jiang et al., since one would be motivated to connect the lasers with the same pins to the same power source to reduce manufacturing costs as implied from Jiang et al. (Fig. 4).

11. With regards to claim 23, Dickson et al. further discloses a window through which light from a first laser may pass (Fig. 1, #16).

12. With regards to claim 24, Dickson et al. in view of Gilliland et al. and Jiang et al. suggests a method as recited above.

However, Dickson et al. does not disclose a fiber.

Gilliland et al. further teaches a fiber (Fig. 1, #96).

It would have been obvious, to one having ordinary skill in the art at the time the invention was made, to further modify the method of Dickson et al. with the fiber of Gilliland et al., since one would be motivated to incorporate this to better direct the light from the laser (Fig. 1) as implied from Gilliland et al.

13. With regards to claim 25, Dickson et al. in view of Gilliland et al. and Jiang et al. suggests a method as recited above.

However, Dickson et al. does not disclose VCSELs connected to the same pins in parallel.

Jiang et al. further teaches VCSELs connected to the same pins in parallel (Fig. 4).

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It would have been obvious, to one having ordinary skill in the art at the time the invention was made, to further modify the method of Dickson et al. with VCSELs in parallel of Jiang et al., since one would be motivated to connect the lasers with the same pins to the same power source to reduce manufacturing costs as implied from Jiang et al. (Fig. 4).

14. With regards to claim 28, Dickson et al. in view of Gilliland et al. and Jiang et al. suggests a method as recited above.

However, Dickson et al. does not disclose mounting the VCSEL and means of monitoring in a TO can.

Gilliland et al. further teaches mounting the VCSEL and means of monitoring in a TO can (col. 4, lines 25-30).

It would have been obvious, to one having ordinary skill in the art at the time the invention was made, to further modify the method of Dickson et al. with the mounting in a TO can of Gilliland et al., since one would be motivated to incorporate this for a more compact size (col. 1, line 12, and col. 3, lines 25-27) as implied from Gilliland et al.

15. With regards to claims 30-33, Dickson et al. would necessarily have a second power output as a percentage or multiple of a first power output (col. 1, lines 23-24).

16. With regards to claims 34 and 35, Dickson et al. in view of Gilliland et al. and Jiang et al. suggests a device as recited above.

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However, Dickson et al. does not disclose the second power output 50 or 75 percent of the first power output.

It would have been obvious, to one having ordinary skill in the art at the time the invention was made, to further modify the device of Dickson et al. with the second power output 50 or 75 percent of the first power output, since where the general conditions of a claim are disclosed in the prior art, discovering workable ranges only involves routine skill in the art for ensuring a properly adjusted power output in its application of reading or writing (col. 1, lines 23-24) as implied from Dickson et al.

Response to Arguments

17. Applicant's arguments with respect to claims 1-3, 5, 6, 8-11, 18-20, 22-25, and 27-35 have been considered but are moot in view of the new ground(s) of rejection.


Conclusion


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chih-Cheng Glen Kao whose telephone number is (571) 272-2492. The examiner can normally be reached on M - F (9 am to 5 pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ed Glick can be reached on (571) 272-2490. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


gk


EDWARD J. GLICK
SUPERVISORY PATENT EXAMINER